

Curriculum Vitae

Alireza Taheri

PRESENT POSITION

2024-Present Associate Professor
Mechanical Engineering Department,
Sharif University of Technology, Tehran, Iran

2019-2024 Assistant Professor
Mechanical Engineering Department,
Sharif University of Technology, Tehran, Iran



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Head of the Social and Cognitive Robotics Laboratory, Center of Excellence in Design, Robotics, and Automation (CEDRA), Mechanical Engineering Department, Sharif University of Technology, Azadi Street, Tehran, Iran. Postal Code: 1458889694.

EDUCATION

2018-2019 Post-Doctoral Researcher, Social and Cognitive Robotics Lab.,
Sharif University of Technology, Tehran, Iran
Funded by *Iran's National Elites Foundation* (Shahid Chamran Grant)
Research: Utilizing Social Robots and Virtual Reality Systems for Education and Cognitive
Rehabilitation of Children
Supervisor: Dr. Ali Meghdari

2011-2017 Ph.D. in Mechanical Engineering
Sharif University of Technology, Tehran, Iran
GPA of Courses: 18.62/20, Thesis Grade: Excellent
Thesis: Modeling, Design, and Application of Humanoid Robots
for Treatment of Children with Autism
Supervisor: Dr. Ali Meghdari, Co-Advisers: Dr. HamidReza Pouretamad, Dr. Minoos Alemi

Oct. 2016-April 2016 Visiting Student at Technology and Innovative Lab. (TIL),
Child Study Center, Yale School of Medicine, Yale University,
New Haven, CT, USA
Supervisors: Dr. Laura Boccanfuso, Dr. Brian Scasselati, Dr. Katarzyna Chawarska

April 2015-Oct. 2015 Visiting Student at Electrical and Computer Engineering Department,
University of Denver, Denver, CO, USA
Supervisor: Dr. Mohammad H. Mahoor

2009-2011 M.Sc. in Mechanical Engineering
Sharif University of Technology, Tehran, Iran
GPA: 18.41/20
Thesis: Developing a Molecular Dynamics Simulation Software for Modeling of Nano-Contact

Processes (*CEDRA Molecular Dynamics Software*),
Supervisors: Dr. Ali Meghdari, Dr. Seyed Hanif Mahboobi

2005-2009 B.Sc. in Mechanical Engineering
Sharif University of Technology, Tehran, Iran
GPA: 18.23/20

Thesis: Holonomic Constraints in Wheeled Mobile Robots, Supervisor: Dr. Ali Meghdari
2001-2005 Diploma with math and physics discipline,
National Organization for Development of Exceptional Talents, Lar, Iran
GPA: 19.75/20

RESEARCH INTERESTS

- Human-Robot Interaction (HRI)
- Social and Cognitive Robotics
- Design/Use Robots and Virtual Reality Systems for Education and Rehabilitation
- Individuals with special needs
- Artificial Intelligence: Machine Learning, Pattern Recognition, and Deep Learning.
- Dynamic Systems and Control.
- Brain-Robot Interface.

PUBLICATIONS

My Google Scholar webpage: <https://scholar.google.com/citations?user=HOD1jVcAAAAJ&hl=en>

Journal Papers (ISI): [**Corresponding authors have been Underlined**]

- Shahab, M., **Taheri, A.**, Mokhtari, M., AsemanRafat, A.R., Kermanshah, M., Shariati, A., Meghdari, A. F. (2024). Manufacture and development of Taban: a cute back-projected head social robot for educational purposes. *Intelligent Service Robotics*, DOI: <https://doi.org/10.1007/s11370-024-00545-2>
- Esfandbod, A., Rokhi, Z., Meghdari, A. F., **Taheri, A.**, Soleymani, Z., Alemi, M., & Karimi, M. (2023). Fast mapping in word-learning: A case study on the humanoid social robots' impacts on Children's performance. *International Journal of Child-Computer Interaction*, 38, 100614., DOI: <https://doi.org/10.1016/j.ijcci.2023.100614>
- Alizadeh Kolagar, S. A., **Taheri, A.**, & Meghdari, A. F. (2023). NAO robot learns to interact with humans through imitation learning from video observation. *Journal of Intelligent & Robotic Systems*, 109(1), 4., DOI: <https://doi.org/10.1007/s10846-023-01938-8>
- **Taheri, A.**, Atyabi, A., Meghdari, A., & Alemi, M. (2023). " Human-Robot Interaction for Children with Special Needs.". *Frontiers in Robotics and AI*, 10, 1206079., doi: 10.3389/frobt.2023.1206079
- Tajik, S., Ghahraman, M. A., Farahani, S., Rouhbakhsh, N., **Taheri, A.**, Bahramsari, P., & Jalaie, S. (2023). Development of a Smart Game Application for Auditory Training of Children with Spatial Processing Disorder in Iran: A Pilot Study. *Auditory and Vestibular Research*.

- Esfandbod, A., Rokhi, Z., Meghdari, A. F., **Taheri, A.**, Alemi, M., and Karimi, M. (2022) Utilizing an Emotional Robot Capable of Lip-Syncing in Robot-Assisted Speech Therapy Sessions for Children with Language Disorders. International Journal of Social Robotics, DOI: <https://doi.org/10.1007/s12369-022-00946-2>
- Esfandbod, A., Nourbala, A., Rokhi, Z., Meghdari, A. F., **Taheri, A.**, and Alemi, M. (2022) Design, Manufacture, and Acceptance Evaluation of APO: A Lip-syncing Social Robot Developed for Lip-reading Training Programs. International Journal of Social Robotics, DOI: <https://doi.org/10.1007/s12369-022-00933-7>
- Hosseini, S. R., **Taheri, A.**, Alemi, M., and Meghdari, A. (2021) One-shot Learning from Demonstration Approach Toward a Reciprocal Sign Language-based HRI. International Journal of Social Robotics, DOI: <https://doi.org/10.1007/s12369-021-00818-1>
- Basiri, S., **Taheri, A.**, Meghdari, A., Boroushaki, M., and Alemi, M. (2021) Dynamic Iranian Sign Language Recognition Using an Optimized Deep Neural Network: an Implementation via a Robotic-based Architecture. International Journal of Social Robotics, DOI: <https://doi.org/10.1007/s12369-021-00819-0>
- Saffari, E., Hosseini, S. R., **Taheri, A.**, Meghdari, A. (2021). “Does Cinema Form the Future of Robotics?”: A Survey on Fictional Robots in Sci-Fi Movies. SN Applied Sciences, Topical Collection on Engineering Education Research (EER), **3**, 655 (2021), DOI: <https://doi.org/10.1007/s42452-021-04653-x>
- Basiri, S., **Taheri, A.**, Meghdari, A. and Alemi, M. (2021) Design and Implementation of a Robotic Architecture for Adaptive Teaching: A Case Study on Iranian Sign Language. Journal of Intelligent & Robotic Systems, 102, 48 (2021). <https://doi.org/10.1007/s10846-021-01413-2>
- **Taheri, A.**, Shariati, A., Heidari, R., Shahab, M., Alemi, M. and Meghdari, A. Impacts of using a social robot to teach music to children with low-functioning autism. Paladyn, Journal of Behavioral Robotics, vol. 12, no. 1, 2021, pp. 256-275. <https://doi.org/10.1515/pjbr-2021-0018>
- Shahab, M., **Taheri, A.**, Mokhtari, M., Shariati, A., Heidari, R., Meghdari, A., Alemi, M. Utilizing social virtual reality robot (V2R) for music education to children with high-functioning autism. Education and Information Technologies (2021). <https://doi.org/10.1007/s10639-020-10392-0>
- **Taheri, A.**, Meghdari, A. & Mahoor, M.H. A Close Look at the Imitation Performance of Children with Autism and Typically Developing Children Using a Robotic System. International Journal of Social Robotics (2020). <https://doi.org/10.1007/s12369-020-00704-2>
- Aliasghari, P., **Taheri, A.**, Meghdari, A., Maghsoodi, E. (2020). Implementing a gaze control system on a social robot in multi-person interactions. SN Applied Sciences, Topical Collection on Socio-Cognitive Engineering (SCE), DOI: <https://doi.org/10.1007/s42452-020-2911-0>

- Alemi, M., Taheri, A., Shariati, A., Meghdari, A. (2020). Social Robotics, Education, and Religion in the Islamic World: An Iranian Perspective. Journal of Science and Engineering Ethics, <https://doi.org/10.1007/s11948-020-00225-1>
- Zibafar, A., Saffari, E., Alemi, M., Meghdari, A., Faryan, L., Pour, A. G., ... & **Taheri, A.** (2019). State-of-the-Art Visual Merchandising Using a Fashionable Social Robot: RoMa. International Journal of Social Robotics, 1-15.
- **Taheri, A.**, Meghdari, A., Alemi, M., & Pouretamad, H. (2019). Teaching music to children with autism: a social robotics challenge. Scientia Iranica, 26(1), 40-58.
- Pour, A. G., **Taheri, A.**, Alemi, M., & Meghdari, A. (2018). Human–robot facial expression reciprocal interaction platform: case studies on children with autism. International Journal of Social Robotics, 10(2), 179-198.
- **Taheri, A.**, Meghdari, A., Alemi, M., & Pouretamad, H. R. (2018). Clinical interventions of social humanoid robots in the treatment of a pair of high-and low-functioning autistic Iranian twins. Scientia Iranica. Transaction B, Mechanical Engineering, 25(3), 1197-1214.
- **Taheri, A.**, Meghdari, A., Alemi, M., & Pouretamad, H. (2018). Human–robot interaction in autism treatment: a case study on three pairs of autistic children as twins, siblings, and classmates. International Journal of Social Robotics, 10(1), 93-113.
- Mahboobi, S. H., Taheri, A., Pishkenari, H. N., Meghdari, A., & Hemmat, M. (2015). Cellular injection using carbon nanotube: A molecular dynamics study. Nano, 10(02), 1550025.
- Taheri, M., Mohebbi, A., & **Taheri, A.** (2010). Simulation of SO₂ absorption in a venturi scrubber. Chemical Engineering Communications, 197(7), 934-952.

ISC:

- Mashaghi, M. H., **Taheri, A.**, & Behzadipour, S. (2023). Proposing an empirical motion-time pattern for human gaze behavior in different social situations. Sharif Journal of Mechanical Engineering. *Accepted for Publication on July 2023* (in Persian).
- **Taheri, A.**, Meghdari, A., Alemi, M., & Pouretamad, H. R. (2019). Impacts of Social Robots in Education and Rehabilitation of Children with Autism in Iran, Amirkabir Journal of Mechanical Engineering, **doi: 10.22060/MEJ.2019.15434.6121** (in Persian)

Books and/or Book Chapters:

- **Alireza Taheri** (2023) Impacts of Socially Assistive Robots on Improving the Quality of Life in Children with Autism, Editor(s): Bonnie Halpern-Felsher, Encyclopedia of Child and Adolescent Health (First Edition), Academic Press, 2023, Pages 99-125, ISBN 9780128188736,, <https://doi.org/10.1016/B978-0-12-818872-9.00125-4>
- **Alireza Taheri**, Ali Meghdari, Mino Alemi (2023) Socially assistive robots serving individuals with cancer and deafness/hearing loss, Editor(s): Bonnie Halpern-Felsher, Encyclopedia of Child and Adolescent Health (First Edition), Academic Press, 2023, Pages

126-150, ISBN 9780128188736, Elsevier, 2023, <https://doi.org/10.1016/B978-0-12-818872-9.00131-X>

- **Taheri Alireza.**, Eslami B., Rafi'inia A., Rajebi H., 2010, "*Common Mistakes in Mathematics, Physics and Chemistry Courses for High School Students*", Nov 2010, Kanoon Educational and Cultural Press, ISBN: 978-600-126-333-0 (in Persian).
- **Taheri Alireza.**, Malvandi M., Noori M., Hamzelo'I M., Tavana M., Rajebi H., 2010, "*Common Mistakes in Mathematics, Physics and Chemistry Courses for Pre-University Students*", May 2010, Kanoon Educational and Cultural Press, ISBN: 978-600-126-015-5 (in Persian).

Conference Papers:

- **Taheri, A.**, Khatiri, S., Seyyedzadeh, A., Ghorbandaei Pour, A., Siamy, A., & Meghdari, A. F. (2023, December). Investigating the Impact of Human-Robot Collaboration on Creativity and Team Efficiency: A Case Study on Brainstorming in Presence of Robots. In International Conference on Social Robotics (pp. 94-103). Singapore: Springer Nature Singapore.
- Amiri, O., Shahab, M., Mohebati, M. M., Miryazdi, S. A., Amiri, H., Meghdari, A., ... & **Taheri, A.** (2023, December). Virtual Reality Serious Game with the TABAN Robot Avatar for Educational Rehabilitation of Dyslexic Children. In International Conference on Social Robotics (pp. 161-170). Singapore: Springer Nature Singapore.
- Shahab, M., Mokhtari, M., Miryazdi, S. A., Ahmadi, S., Mohebati, M. M., Sohrabipour, M., ... & **Taheri, A.** (2023, December). A Tablet-Based Lexicon Application for Robot-Aided Educational Interaction of Children with Dyslexia. In International Conference on Social Robotics (pp. 344-354). Singapore: Springer Nature Singapore.
- Nazemi, H., Ebrahimzadeh, M. A., **Taheri, A.** (2023). The Effect of Feature Normalization on Motor Imagery Task Classification. In 2023, 5th Sharif Neuroscience Symposium 2023 (SNS2023), Tehran, Iran, 2023. **Extended Abstract.**
- Riazi Bakhshayesh, P., Ejtehadi, M., **Taheri, A.**, Behzadipour, S. (2022). The Effects of Data Augmentation Methods on the Performance of Human Activity Recognition. In 2022, 8th Iranian Conference on Signal Processing and Intelligent Systems (ICSPIS), Mazandaran, Iran, 2022.
- Mazhari, A., Esfandiari, P., **Taheri, A.** (2022). Teaching Iranian Sign Language via a Virtual Reality-Based Game. In 2022 10th International Conference on Robotics and Mechatronics (ICRoM). IEEE, Tehran, Iran, Nov. 2022.
- Nemati, M., **Taheri, A.**, Ghazizadeh, A., Banitalebi Dehkordi, M., Meghdari, A. (2022). Feature Selection Using EEG Signals: A Novel Hybrid Binary Particle Swarm Optimization. In 2022 10th International Conference on Robotics and Mechatronics (ICRoM). IEEE, Tehran, Iran, Nov. 2022.
- Daryakenari, F. H., Mollahosseini, M., **Taheri, A.**, Vossoughi, G. R. (2022). Classification of Lower Limb Electromyographical Signals Based on Autoencoder Deep Neural Networks Transfer Learning. In 2022 10th International Conference on Robotics and Mechatronics (ICRoM). IEEE, Tehran, Iran, Nov. 2022.
- Ghadami, A., Mohammadzadeh, M., Taghimohammadi, M., and **Taheri, A.** (2022). Automated Driver Drowsiness Detection from Single-Channel EEG Signals Using

Convolutional Neural Networks and Transfer Learning. In 25th IEEE Intelligent Transportation Systems Conference (ITSC 2022). Macau, China, Oct. 2022.

- Nemati, M., **Taheri, A.** (2022). EEG signal analysis for controlling a computer avatar with motor imagery pattern. In 2022, 4th Sharif Neuroscience Symposium 2022 (SNS2022), Tehran, Iran, 2022. **Extended Abstract**.
- Nazemi, H., **Taheri, A.**, Meghdari, A., Boroushaki, M, Ghazizadeh, A. (2021). Emotion Recognition Using EEG Signals: Accuracy Comparison Between Methods and Frequency Bands. In 2021 9th International Conference on Robotics and Mechatronics (ICRoM). IEEE, Tehran, Iran, Nov. 2021.
- Memari, M., Sakhaee, M.M., Nadian, M.H., **Taheri, A.**, Ghazizadeh, A. (2021). Design and Manufacture of a Guided Mechanical Arm by EEG Signals. In 2021 9th International Conference on Robotics and Mechatronics (ICRoM). IEEE, Tehran, Iran, Nov. 2021.
- Gholipour A., **Taheri A.**, Mohammadzade H. (2021) Automated Lip-Reading Robotic System Based on Convolutional Neural Network and Long Short-Term Memory. In: Li H. et al. (eds) Social Robotics. ICSR 2021. Lecture Notes in Computer Science, vol 13086. Springer, Cham. https://doi.org/10.1007/978-3-030-90525-5_7
- Nemati A., **Taheri A.**, Zhao D., Meghdari A.F., Ge S.S. (2021) Acceptance of Robotic Transportation in Small Workshops: A China-Iran Cross-Cultural Study. In: Li H. et al. (eds) Social Robotics. ICSR 2021. Lecture Notes in Computer Science, vol 13086. Springer, Cham. https://doi.org/10.1007/978-3-030-90525-5_71
- Etesami E., Nemati A., Meghdari A.F., Ge S.S., **Taheri A.** (2021) Design and Fabrication of a Floating Social Robot: CeB the Social Blimp. In: Li H. et al. (eds) Social Robotics. ICSR 2021. Lecture Notes in Computer Science, vol 13086. Springer, Cham. https://doi.org/10.1007/978-3-030-90525-5_58
- Mashaghi, M., **Taheri, A.**, Behzadipour, S., Boroushaki, M. (2020). Proposing an Empirical Motion-Time Pattern of Human Gaze Behaviors in a Social Situation. In 2020 8th International Conference on Robotics and Mechatronics (ICRoM), Tehran, Iran, Nov. 2020.
- Hosseini, S. R., **Taheri, A.**, Meghdari, A., & Alemi, M. (2019, November). Teaching Persian Sign Language to a Social Robot via the Learning from Demonstrations Approach. In International Conference on Social Robotics (pp. 655-665). Springer, Cham.
- Ahmadi, E., Pour, A. G., Siamy, A., **Taheri, A.**, & Meghdari, A. (2019, November). Playing Rock-Paper-Scissors with RASA: A Case Study on Intention Prediction in Human-Robot Interactive Games. In International Conference on Social Robotics (pp. 347-357). Springer, Cham.
- Shahab, M., Raisi, M., Hejrati, M., **Taheri, A. R.**, & Meghdari, A. (2019, November). Virtual Reality Robot for Rehabilitation of Children with Cerebral Palsy (CP). In 2019 7th International Conference on Robotics and Mechatronics (ICRoM) (pp. 63-68). IEEE.
- Esfandbod, A., Rokhi, Z., **Taheri, A.**, Alemi, M., & Meghdari, A. (2019, November). Human-Robot Interaction based on Facial Expression Imitation. In 2019 7th International Conference on Robotics and Mechatronics (ICRoM) (pp. 69-73). IEEE.
- **Taheri Alireza**, Shahab Mojtaba, Meghdari Ali, Alemi Minoo, Amoozandeh Nobaveh Ali, Rokhi Zeynab, Ghorbandaei Pour Ali, 2018, “*Virtual Social Toys: A Novel Concept to Bring*

Inanimate Dolls to Life”, 10th International Conference on Social Robotics (ICSR2018), Qingdao, China, November 28th-30th 2018.

- Hosseini Seyed Ramezan, **Taheri Alireza**, Meghdari Ali, Alemi Minoo, 2018, “*“Let There be Intelligence!”- A Novel Cognitive Architecture for Teaching Assistant Social Robots*”, 10th International Conference on Social Robotics (ICSR2018), Qingdao, China, November 28th-30th 2018.
- Tavakkolelahy Maryam, Habibnejad Korayem Amin, Shariati Azadeh, Meghdari Ali, Alemi Minoo, Ahmadi Ehsan, **Taheri Alireza**, Heidari Rozita, 2017, “*“Xylotism” : A Tablet-Based Application to Teach Music to Children with Autism*”, 9th International Conference on Social Robotics (ICSR2017), Tsukuba, Japan, November 22nd-24th 2017.
- Alemi Minoo, Meghdari Ali, Saffari Ehsan, Zibafar Ahmad, Faryan Leila, Ghorbandaei Pour Ali, RezaSoltani Amin, **Taheri Alireza**, 2017, “*RoMa: A Hi-tech Robotic Mannequin for the Fashion Industry*”, 9th International Conference on Social Robotics (ICSR2017), Tsukuba, Japan, November 22nd-24th 2017.
- Shahab Mojtaba, **Taheri Alireza**, Mokhtari Mohammad, Hosseini Seyed Ramezan, Meghdari Ali, Alemi Minoo, Pouretamad HamidReza, Shariati Azadeh, Ghorbandaei Pour Ali, 2017, “*Social Virtual Reality Robot (V2R): A Novel Concept for Education and Rehabilitation of Children with Autism*”, The 5th RSI/IEEE International Conference on Robotics and Mechatronics, ICRoM 2017, Amirkabir U., Tehran, Iran, October 25th-27th 2017.
- Meghdari Ali, Alemi Minoo, **Taheri Alireza**, Hatefipour Mehdi, 2016, “*The Social WATER Robot: an Exciting Educational Tool for Teaching Children about Water Awareness and Conservation*”, 8th International Conference on Water and Environment in the New Millennium (WENM2016), Tehran, Iran, November 1st-3rd 2016.
- **Taheri Alireza**, Meghdari Ali, Alemi Minoo, Pouretamad HamidReza, Poorgoldooz Pegah, Roohbakhsh Maryam, 2016, “*Social Robots and Teaching Music to Autistic Children: Myth or Reality?*”, 8th International Conference on Social Robotics (ICSR2016), Kansas City, USA, November 1st-3rd 2016.
- Meghdari Ali, Alemi Minoo, Ghorbandaei Pour Ali, **Taheri Alireza**, 2016, “*Spontaneous Human-Robot Emotional Interaction through Facial Expressions*”, 8th International Conference on Social Robotics (ICSR2016), Kansas City, USA, November 1st-3rd 2016.
- **Taheri Alireza**, Meghdari Ali, Alemi Minoo, Pouretamad HamidReza, 2016, “*Impact of Humanoid Social Robots on Improving the Cognitive and Social Skills of Children with Autism in Iran*”, ISME2016, The 24th International Conference on Mechanical Engineering, Yazd, Iran, May 2016, (*In Persian*)
- **Taheri Alireza**, Alemi Minoo, Meghdari Ali, Pouretamad Hamid Reza, Mahboob Basiri Nasim, Poorgoldooz Pegah, 2015, “*Impact of Humanoid Social Robots on Treatment of a Pair of Iranian Autistic Twins*”, 7th International Conference on Social Robotics (ICSR2015), Paris, France, October 26th-30th 2015.
- Alemi Minoo, Meghdari Ali, Mahboob Basiri Nasim, **Taheri Alireza**, 2015, “*The Effect of Applying Humanoid Robots as Teacher Assistants to Help Iranian Autistic Pupils Learn English as a Foreign Language*”, 7th International Conference on Social Robotics (ICSR2015), Paris, France, October 26th-30th 2015.
- **Taheri A.R.**, Alemi M., Meghdari A., Pouretamad H.R., Holderread S.L., 2014, “*Clinical Application of Humanoid Robots in Playing Imitation Games for Autistic Children in Iran*”,

14th Int. Educational Technology Conference (IECT), Chicago, IL, USA, Procedia - Social and Behavioral Sciences, Sept. 3-5, 2014.

- **Taheri Alireza**, Alemi Minoo, Meghdari Ali, Pouretamad HamidReza, Mahboob Basiri Nasim, 2014, “*Social Robots as Assistants for Autism Therapy: Research in Progress*”, The 2nd RSI International Conference on Robotics and Mechatronics, ICRoM 2014, Khaje Nasir U., Tehran, Iran, October 2014.
- Meghdari Ali, Alemi Minoo, Pouretamad HamidReza, **Taheri Alireza**, Mahboob Basiri Nasim, Roshani Arash, Nasiri Negin, Aghasizadeh Mahdieh, 2014, “*Utilizing Humanoid Robots in Teaching Motor and Social Skills to Children with Autism*”, 3rd Basic Clinical and Neuroscience Congress 2014, Tehran, Iran, Oct. 2014, **Extended Abstract**.
- Alemi Minoo, Meghdari Ali, Pouretamad HamidReza, Mahboob Basiri Nasim, **Taheri Alireza**, Roshani Arash, Nasiri Negin, Aghasizadeh Mahdieh, 2014, “*The Effect of Humanoid Robots on Helping Iranian Autistic Children in Learning English as a Foreign Language*”, 3rd Basic Clinical and Neuroscience Congress 2014, Tehran, Iran, Oct. 2014, **Extended Abstract**.
- Meghdari Ali, Alemi Minoo, Pouretamad HamidReza, **Taheri Alireza**, “*Clinical Application of a Humanoid Robot in Playing Imitation Games for Autistic Children in Iran*”, 2nd Basic Clinical and Neuroscience Congress 2013, ,Tehran, Iran, Dec. 2013, **Extended Abstract**. (*in Persian*)
- Meghdari Ali, Alemi Minoo, **Taheri Alireza**, 2013, “*The Effects of Using Humanoid Robots for Treatment of Individuals with Autism in Iran*”, 6th Neuropsychology Symposium 2013, Tehran, Iran, Dec 2013, **Extended Abstract**. (*in Persian*)
- Meghdari Ali, Alemi Minoo, Ghaazisaidi Maryam, **Taheri Alireza**, Karimian Arman, Zandevakily Mersedeh, 2013, “*Applying Robots as Teaching Assistants in EFL Classes at Iranian Middle-Schools: A Conceptual Model*”, EMET2013, The 2013 International Conference on Education and Modern Educational Technologies, Venice, Italy, Sep 2013.

PATENTS

- Alemi Minoo, Meghdari Ali, **Taheri Alireza**, Ghaazisaidi Maryam, “Design and Utilization of Humanoid Robots in First and Second Language Teaching”, Center of Excellence in Design, Robotics and Automation (CEDRA), Sharif Univ. of Tech., patented in Iran, **Patent Number: 80841**.
- Beigzadeh Borhan, **Taheri Alireza**, Meghdari Ali, Monjazebe Alireza., “Design and Fabrication of a Holonomic Robot with Spherical Wheels”, Center of Excellence in Design, Robotics and Automation (CEDRA), Sharif Univ. of Tech., patented in Iran, **Patent Number: 67938**.
(*CEDRA Lab. website: <http://www.mech.sharif.ir/web/14039/1>)*

HONORS AND AWARDS

- Winner (ranked 1st) of the ICSR Robot Design Competition for our developed package “T-Dyslexia: Taban2 Social Robot Package Assisting Dyslexia”, ICSR2023, Doha, Qatar, Dec. 2023.

- Nominated as the Best Student Paper Award for our paper “Virtual Reality Serious Game with the TABAN Robot Avatar for Educational Rehabilitation of Dyslexic Children”, ICSR2023, Doha, Qatar, Dec. 2023.
- Nominated as the Best Poster Award for our paper “A Tablet-Based Lexicon Application for Robot-Aided Educational Interaction of Children with Dyslexia”, ICSR2023, Doha, Qatar, Dec. 2023.
- Got the **Excellence in Teaching Award** by the President of the University based on the education performance among the faculty members of the Mechanical Engineering Department, Sharif University of Technology, Iran, 2023.
- Top ten percent scientific solutions in the 3rd KANS Scientific Competition, “Social Robots and Virtual Reality systems to improve the quality of life for children with special needs” in the field of “Health & Med-Tech”, Mustafa Science and Technology Foundation, Iran, 2022-2023.
- Got the **Young Faculty Appreciation Award** of Sharif University of Technology based on the education performance by the President of the University, Sharif University of Technology, Iran, 2022.
- Shortlisted as one of the 2021 Oscar’s of Education, Reimagine Education Awards and Conference for the “Learning from demonstration and the RASA humanoid robot architecture for adaptive teaching: A case study on Iranian Sign Language”, USA, Nov. 2021.
- Being selected as the Finalist in the Robot Design Competition for “TABAN 2: A Social Robot Designed for Interaction with Children with Dyslexia and a Complementary Virtual Reality Game”, ICSR2021, Singapore, Nov. 2021.
- Being selected as the Finalist in the Robot Design Competition for “Apo: A social robot for teaching water and energy consumption scheme to children”, ICSR2021, Singapore, Nov. 2021.
- Getting the Best Award for designing a VR game in the area of Treatment and Co-therapy for “Autism Park II: A Virtual Reality Game for Education and Cognitive Rehabilitation of Children with Autism”, In the 1st Festival of the AR and VR Games, Iran Computer Games Foundation, Tehran, Iran, Nov. 2021.
- Getting the 3rd Place for designing “Virtual Reality Games for Elderly Care”, Cognotech Challenge for Cognitive Rehabilitation of Elderly People, Vice-Presidency for Science and Technology, Tehran, Iran, Dec. 2020.
- Winner of the Prize for designing “Autism Park: A Virtual Reality Game for Education and Cognitive Rehabilitation of Children with Autism”, 4th Serious Games Prize 2020, Tehran, Iran, Nov. 2020.
- Winner of the Prize for designing “The Virtual Room for Cognitive Rehabilitation of Children with Autism”, 3rd Serious Games Prize 2019, Shahid Beheshti University, Tehran, Iran, Nov. 2019.
- Winner of the Best Robot Design in Software Category for “The Virtual Social Toys: Bringing Inanimate Toys to Life”, ICSR2018, Qingdao, China, Nov. 2018.
- Winner of the Shahid Chamran Grant by the Iran’s National Elites Foundation to be a Post-Doctoral Researcher at Sharif University of Technology, 2018.
- Winner of the Dr. MohammadHossein KargarNovin’s Memorial Award, Mechanical Engineering Department, Sharif University of Technology, Iran, 2018.
- Winner of the Best Robot Design in Innovative Idea Category for “The Social WATER: Water Awareness Teaching and Educational Robot”, ICSR2016, Kansas City, USA, Nov. 2016.
- Winner of the Scholarship Award by the “Cognitive Science and Technologies Council of Iran” to attend one of the International Universities as a Visiting Student, 2016.

- One of the 7 students who have been Directly Admitted to the Mech. Eng. Ph.D. Program at Sharif University of Technology, based on Excellent M.Sc. Records, 2011.
- Winner of Sharif Univ. of Tech. **Distinguished Student Award** and Candidate for National Distinguished Student Award, Dec 2010.
- Ranked **5th** among 40 graduate students of Applied Mechanics, Mechanical Engineering Department, Dec 2010.
- One of the 5 students selected participants of Sharif Univ. of Tech. to attend the National Mechanical Engineering Olympiad, Feb 2009.
- Directly admitted to the Mech. Eng. M.Sc. Program at Sharif University of Technology, based on Excellent B.Sc. Records, 2008.
- Ranked **5th** among 120 undergraduate students of Mechanical Engineering Department, 2009.
- Ranked **175th** among about 300000 participants in the National Entrance Exam for B.Sc. degree in Science and Engineering, 2005.
- **Gold Medal** in the **16th Chess Team Competition of Iranian University Students**, Esfahan, 2007.
- **Semifinalist** in Iran National Olympiads: Computer and Literature, 2003.
- **Silver Medal** in Mathematical Olympiad of Teenagers in Fars Province, Aug 1998.

TEACHING EXPERIENCES

- **Social and Cognitive Robotics (Graduate)**, Mechanical Engineering Department, Sharif University of Technology, **Spring 2022-Present**. (<http://mech.sharif.edu>)
- **Advanced Engineering Mathematics (Graduate)**, Mechanical Engineering Department, Sharif University of Technology, **2019-Present**. (<http://mech.sharif.edu>)
- **Robotics Lab. (Graduate)**, Mechanical Engineering Department, Sharif University of Technology, **2019-Present**. (<http://mech.sharif.edu>)
- **Measurement and Control Systems and Lab. (Undergraduate)**, Mechanical Engineering Department, Sharif University of Technology, **2019-Present**. (<http://mech.sharif.edu>)
- **Dynamics (Undergraduate)**, Mechanical Engineering Department, Sharif University of Technology, **fall 2019-Present**. (<http://mech.sharif.edu>)
- **Statics (Undergraduate)**, Department of Mechanical Engineering, Sharif University of Technology, **fall 2019-Present**. (<http://mech.sharif.edu>)
- **Statics (Undergraduate)**, Department of Materials Science and Engineering, Sharif University of Technology, **spring 2019**. (<http://mse.sharif.edu>)
- **Instructor, Statics and Strength of Materials (Undergraduate)**, Chemical and Petroleum Engineering Department, Sharif University of Technology, **fall 2012, spring 2013, and spring 2014**. (<http://che.sharif.edu>)

COLLABORATION WITH JOURNALS

- **Handling Editor** of the Research Topic entitled “**Human-Robot Interaction for Children with Special Needs**”, *Frontiers in Robotics and AI*, 2021-2022.

<https://www.frontiersin.org/research-topics/21770/human-robot-interaction-for-children-with-special-needs>

COLLABORATION WITH CONFERENCES

- **Executive Chair**, 30th National and 8th **International Iranian Conference on Biomedical Engineering (ICBME 2023)**, Mechanical Engineering Department, Sharif University of Technology, Tehran, Iran, Nov 30th and December 1st, 2023.

(<https://icbme.ir/>)

RESEARCH AND INDUSTRIAL EXPERIENCES

- **Teromel Company, Iran.**

Principal Investigator (PI), “*Design and Fabrication of a Robot for Helping Tennis Players*”, 2021.

- **Iran National Science Foundation, INSF (Grant No. 98025100)**

Principal Investigator (PI), “*Implementing Adaptive Iranian Sign Language Teaching on the RASA Social Robot*”, 2020-2022. (Co-PI: Prof. Ali Meghdari, Consultant: Dr. Minoo Alemi)

- **Sharif University of Technology Grants, (Grant No. G980517)**

Principal Investigator (PI), “*Utilizing Social Robots and Virtual Reality Systems for Education and Cognitive Rehabilitation of Children with Special Needs in Iran*”, 2020-2023. (Co-PI: Prof. Ali Meghdari)

- **Teb-o-Sanat Tavanmand Company, Iran.**

Principal Investigator (PI), “*Design and Fabrication of a Bionic Hand for Individuals with Hand Amputation*”, 2020-2022. (Co-PI: Dr. Amir Nourani)

- **Cognitive Science and Technologies Council (CSTC)**

Principal Investigator (PI), “*Modeling and Application of a Social Robot for Cognitive Rehabilitation of Children with Dyslexia in Iran*”, 2019-2021. (Co-PIs: Prof. Ali Meghdari, and Dr. Minoo Alemi)

- **Iran National Science Foundation (INSF)**

Co-Principal Investigator (Co-PI), “*Designing a Robot Head for Studying Social Interaction with the Ability to Express Emotions Using a Projector*”, 2018-Present. (PI: Dr. Azadeh Shariati, Consultants: Prof. Ali Meghdari and Dr. Minoo Alemi)

- **Cognitive Science and Technologies Council (CSTC), (Grant No. 95p22)**

Research Assistant, “*Utilizing Robotics Technology and Intelligent Devices in Rehabilitation of Individuals with Autism in Iran*”, 2016-2018. (PI: Prof. Ali Meghdari, Consultant: Dr. Minoo Alemi)

- **Cognitive Science and Technologies Council (CSTC)**

Research Assistant, “*On the Modeling and Application of Humanoid Robots as Co-Therapist in Autism Treatment*”, 2014-2016. (PI: Prof. Ali Meghdari, Consultant: Dr. Minoo Alemi)

OTHER WORKING EXPERIENCES

- **Hushmand Afzar Robotics (Pishrobot)**, Tehran, Iran

Training to work with KAI Robot and OLLO kits, summer 2013

(www.pishrobot.com)

STUDENTS

PhD Students:

1. Morteza Memari
2. Kimia Hashemi
3. Amirali Rasaeifard (Co-advised with Prof. A. Meghdari)
4. Seyed MohammadJafar Zolanvary (Co-advised with Prof. A. Meghdari), **Thesis title:** *“Developing a cognitive architecture based on active inference to learn social etiquette on a social robot”*
5. Seyed Ramezan Hosseni (Co-advised with Prof. A. Meghdari, Consultant: Dr. M. Alemi), **Thesis title:** *“Design and Implementation of an Iranian Sign Language based Reciprocal Human-Robot Interaction using Implicit Memory and Imitation Learning Simulation”*
6. Alireza Esfandbod (Co-advised with Prof. A. Meghdari, Consultant: Dr. M. Alemi), **Thesis title:** *“Design and Implementation of a Face Recognition/Expression System on Social Robots”*, 2022.
7. Mojtaba Shahab (Co-advised with Prof. A. Meghdari and Dr. Alemi, Consultant: Prof. H. Pouretamad), **Thesis title:** *“Design, Modeling, and Application of a Social Robot for Cognitive Rehabilitation of Children with Dyslexia in Iran”*

MSc Students:

1. Seyed Ali Mirghassemi
2. Sahahr Aghakhani
3. Mohammad Hossein Jamshidi
4. Mohammadreza Motaharipour
5. Mahdi Haghightajoo, **Thesis title:** *“Redesign and Reconstruction of an intelligent cane for blind people using continual learning algorithm”*
6. Armin Tandiseh, **Thesis title:** *“Modeling of children’s behaviors in interaction with a virtual social robot during a music education program using deep neural networks”*
7. Rasoul Zahedifar (Co-advised with Dr. M. Soleymani), **Thesis title:** *“Socially-Aware Mobile Robot Path Planning in Crowded Spaces using Deep Learning-based Human Trajectory Prediction Model”*
8. Mohammad Hossein Fazli (Co-advised with Prof. A. Meghdari), **Thesis title:** *“Design and Implementation of an Adaptive Architecture for Teaching the Reading Skill to Children with Dyslexia using the Taban Robot”*
9. Mohammad Shahrokhi (Co-advised with Prof. A. Meghdari), **Thesis title:** *“Design, manufacture and intelligentization of anthropomorphic robotic hand for the Rasa robot”*
10. Morteza Memari, **Thesis title:** *“Adaptive teaching of the Iranian sign language based on continual learning algorithms using RASA robot”*, 2023.
11. Seyed Mohsen Deghani, **Thesis title:** *“Locomotion Control of Bipedal Robot using Reinforcement Learning based on Model Predictive Control”*
12. Ali Ghadami (Co-advised with Prof. A. Meghdari), **Thesis title:** *“Developing a Vision-Based Continuous Persian Sign Language Translation System”*, 2023.
13. Seyed Ramtin Tabatabaei (Co-advised with Prof. A. Meghdari), **Thesis title:** *“Proposing an empirical motion-time pattern for human gaze behavior in different social situations using Deep Neural Networks”*, 2023.
14. Mohammad Hossein Zahedi Bidgoli (Co-advised with Dr. H. Nejat), **Thesis title:** *“Development of a control system with capability of generating magnetic field to steer a flexible tool”*, 2024.
15. Hamed Nazemi (Co-advised with Prof. A. Meghdari, Consultant: Dr. A. Ghazizadeh), **Thesis title:** *“Designing an emotion capturing system using EEG signals and human-robot interaction platform based on the captured emotion”*, 2022.

16. Amirreza Aseman Rafat (Co-advised with Prof. A. Meghdari), **Thesis title:** “*Reproducing of social gestures in the RASA humanoid robot via dynamic movement primitives*”, **2023.**
17. Seyed Soroush Razavi (Co-advised with Prof. A. Meghdari), **Thesis title:** “*Design and implementation of a machine-learning-based context-aware system for adaptive social robots’ proxemics*”, **2023.**
18. Hossein Ranjbar, **Thesis title:** “*Designing an automatic system for continuous meaningful gesture recognition by deep learning and implementing it on the RASA social robot*”, **2023.**
19. Mohammad Nemati, **Thesis title:** “*Design and test of an EEG-based video game combined with an eye tracker*”, **2023.**
20. Mohammad Moein Jamei, (Co-advised with Prof. A. Meghdari and Dr. M. Alemi), **Thesis title:** “*Design and investigation of the impact of using virtual reality games on the elderly’s cognitive impairments*”, **2023.**
21. Hadi Zandieh (Co-advised with Prof. G.R. Vosoughi), **Thesis title:** “*Real-time Pattern Recognition of Hand Gestures based on Machine Learning Algorithms and Surface EMG*”, **2022.**
22. Mohammad Hossein Mashaghi (Co-advised with Dr. S. Behzadipour), **Thesis title:** “*Proposing an Empirical Motion-Time Pattern of Human Gaze Behaviors in Different Social Situations and Implementing the Pattern on the RASA Social Robot*”, **2022.**
23. Mostafa Nowrozi (Co-advised with Prof. A. Meghdari, Consultant: Dr. M. Soleymani), **Thesis title:** “*Design and Implementation of a Collision Avoidance Module in Dynamic Environment with Deep Reinforcement Learning on Arash Social Robot*”, **2021.**
24. Amir Gholipour (Co-advised with Dr. H. Mohammadzadeh), **Thesis title:** “*Designing an Automatic Lip-Reading System for Persian Words Using Deep Neural Networks and Implementing It on Rasa Social Robot*”, **2022.**
25. Sajjad Abbasi (Co-advised with Prof. A. Meghdari), **Thesis title:** “*Design and Impacts of Virtual Reality Games on Social and Cognitive Skills of Children with Autism Spectrum Disorders*”, **2022.**
26. Adel Alizadeh (Co-advised with Prof. A. Meghdari), **Thesis title:** “*Learning Interactive Skills of Nao Robot through Imitation Learning from Observation*”, **2022.**
27. Mobin Habibpour (Co-advised with Prof. A. Meghdari and Dr. A. Nemati), **Thesis title:** “*Semantic Visual SLAM System in Dynamic Environments*”, **2022.**
28. Salar Basiri (Co-advised with Prof. A. Meghdari, Consultant: Dr. M. Alemi), **Thesis title:** “*Implementing Adaptive Iranian Sign Language Teaching on RASA Robot*”, **2020.**
29. Amirreza Razmjoo Fard (Co-advised with Prof. A. Meghdari), **Thesis title:** “*Teaching to Point at Different Objects as an Interactive Gesture to Robot by Learning from Demonstration*”, **2020.**

INTERESTS AND HOBBIES

- Sport: Soccer and Chess

Comment: I have 6 medals in Iran national chess competitions:

- Gold medal in the **16th Chess Team Competition of Iranian University Students**, Esfahan, Fall 2007.
- Silver medal in “3rd NODET Games”, Tehran, Iran, Aug 2003.
- Silver medal in Student Competition of Iranian Schools, Board 3, Kermanshah, Iran, Aug 2001.

- Interested in Graphic Works with computer.

- Science: Math and Astronomy.

- Literature: Persian poetry, Science Fictions.